



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|  |   |  |   |   |
|--|---|--|---|---|
| <p>(51) International Patent Classification <sup>6</sup> :<br/><b>H04N 7/10, 7/14</b></p>  | <b>A1</b>   | <p>(11) International Publication Number: <b>WO 99/65242</b></p> <p>(43) International Publication Date: 16 December 1999 (16.12.99)</p> |   |   |
| <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p>(21) International Application Number: PCT/US99/13065</p> <p>(22) International Filing Date: 9 June 1999 (09.06.99)</p> <p>(30) Priority Data:<br/>60/088,671                      9 June 1998 (09.06.98)                      US</p> <p>(71) Applicant (for all designated States except US): E GUIDE, INC. [CA/CA]; West Tower, 7th floor, 9100 Wilshire Boulevard, Beverly Hills, CA 90212 (US).</p> <p>(72) Inventors; and<br/>(75) Inventors/Applicants (for US only): YUEN, Henry, C. [US/US]; P.O. Box 438, Pasadena, CA 91102-0438 (US). MANKOVITZ, Roy, J. [US/US]; 24236 Park Granada, Calabasas, CA 91302 (US). KWOH, Daniel, S. [US/US]; 3975 Hampstead Road, La Canada/Flintridge, CA 91011 (US). LEUNG, Elsie, Y. [US/US]; 1302 Via Del Rey, South Pasadena, CA 91030 (US). SCHOAFF, Peter, Christopher [US/US]; 1 Sweetwood Circle, Westford, MA 01886 (US).</p> <p>(74) Agent: RAHN, LeRoy, T.; Christie, Parker &amp; Hale, LLP, P.O. Box 7068, Pasadena, CA 91109-7068 (US).</p> </td> <td style="width: 50%; vertical-align: top; padding: 5px;"> <p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b><br/>With international search report.</p> </td> </tr> </table> |   |  | <p>(21) International Application Number: PCT/US99/13065</p> <p>(22) International Filing Date: 9 June 1999 (09.06.99)</p> <p>(30) Priority Data:<br/>60/088,671                      9 June 1998 (09.06.98)                      US</p> <p>(71) Applicant (for all designated States except US): E GUIDE, INC. [CA/CA]; West Tower, 7th floor, 9100 Wilshire Boulevard, Beverly Hills, CA 90212 (US).</p> <p>(72) Inventors; and<br/>(75) Inventors/Applicants (for US only): YUEN, Henry, C. [US/US]; P.O. Box 438, Pasadena, CA 91102-0438 (US). MANKOVITZ, Roy, J. [US/US]; 24236 Park Granada, Calabasas, CA 91302 (US). KWOH, Daniel, S. [US/US]; 3975 Hampstead Road, La Canada/Flintridge, CA 91011 (US). LEUNG, Elsie, Y. [US/US]; 1302 Via Del Rey, South Pasadena, CA 91030 (US). SCHOAFF, Peter, Christopher [US/US]; 1 Sweetwood Circle, Westford, MA 01886 (US).</p> <p>(74) Agent: RAHN, LeRoy, T.; Christie, Parker &amp; Hale, LLP, P.O. Box 7068, Pasadena, CA 91109-7068 (US).</p> | <p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b><br/>With international search report.</p> |
| <p>(21) International Application Number: PCT/US99/13065</p> <p>(22) International Filing Date: 9 June 1999 (09.06.99)</p> <p>(30) Priority Data:<br/>60/088,671                      9 June 1998 (09.06.98)                      US</p> <p>(71) Applicant (for all designated States except US): E GUIDE, INC. [CA/CA]; West Tower, 7th floor, 9100 Wilshire Boulevard, Beverly Hills, CA 90212 (US).</p> <p>(72) Inventors; and<br/>(75) Inventors/Applicants (for US only): YUEN, Henry, C. [US/US]; P.O. Box 438, Pasadena, CA 91102-0438 (US). MANKOVITZ, Roy, J. [US/US]; 24236 Park Granada, Calabasas, CA 91302 (US). KWOH, Daniel, S. [US/US]; 3975 Hampstead Road, La Canada/Flintridge, CA 91011 (US). LEUNG, Elsie, Y. [US/US]; 1302 Via Del Rey, South Pasadena, CA 91030 (US). SCHOAFF, Peter, Christopher [US/US]; 1 Sweetwood Circle, Westford, MA 01886 (US).</p> <p>(74) Agent: RAHN, LeRoy, T.; Christie, Parker &amp; Hale, LLP, P.O. Box 7068, Pasadena, CA 91109-7068 (US).</p>  | <p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b><br/>With international search report.</p> |  |   |   |
| <p>(54) Title: DATABASE FOR USE IN METHOD AND APPARATUS FOR DISPLAYING TELEVISION PROGRAMS AND RELATED TEXT</p>  |   |  |   |   |
| <p>(57) Abstract</p> <p>A database consisting of inventive data structures comprising a static area (300) and dynamic area (301) is used to facilitate the creation of electronic program guides when used with a television program schedule system. The database is periodically updated with television program schedule information and is interrogated by a schedule system in order to create program guides.</p>  |   |  |   |   |
| <p>TELEVISION PROGRAM SCHEDULE DATA BASE</p>   |   |  |   |   |

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

|    |                          |    |                     |    |                       |    |                          |
|----|--------------------------|----|---------------------|----|-----------------------|----|--------------------------|
| AL | Albania                  | ES | Spain               | LS | Lesotho               | SI | Slovenia                 |
| AM | Armenia                  | FI | Finland             | LT | Lithuania             | SK | Slovakia                 |
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| DK | Denmark                  | LK | Sri Lanka           | SE | Sweden                |    |                          |
| EE | Estonia                  | LR | Liberia             | SG | Singapore             |    |                          |

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99/13065

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : H04N 7/10, 7/14,

US CL : 345/327; 348/12, 13, 10, 6, 906

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 345/327; 348/12, 13, 10, 6, 906

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS TV, guide, schedule, times, channels, interactive

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| X         | US 5,589,892 A (KNEE et al) 31 December 1996, fig. 6, fig. 8, fig. 10, fig. 18, fig. 19, fig. 23, col. 2 line 50 - col. 6 line 59 | 1-3                   |
| A         | US 5,557,338 A (MAZE et al) 17 September 1996   | 1-3                   |
| A         | US 5,600,378 A (WASILEWSKI) 04 February 1997  | 1-3                   |
| A         | US 5,596,373 A (WHITE et al) 21 January 1997  | 1-3                   |

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

|   |  |
|---|--|
| * Special categories of cited documents   | *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |
| *A* document defining the general state of the art which is not considered to be of particular relevance  | *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone   |
| *B* earlier document published on or after the international filing date  | *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| *C* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | *Z* document member of the same patent family  |
| *D* document referring to an oral disclosure, use, exhibition or other means  |  |
| *E* document published prior to the international filing date but later than the priority date claimed  |  |

Date of the actual completion of the international search

19 JULY 1999

Date of mailing of the international search report

20 AUG 1999

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

Vivek Srivastava

*James R. Matthews*

Telephone No. (703) 305-4038

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

|  |  |  |
|--|--|--|
| Applicant's or agent's file reference<br>34758PCT/LTR  | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |  |
| International application No.<br>PCT/US99/13065  | International filing date (day/month/year)<br>09 JUNE 1999   | Priority date (day/month/year)<br>09 JUNE 1998 |
| International Patent Classification (IPC) or national classification and IPC<br>IPC(7): HO4N 7/10, 7/14, and US Cl.: 345/327; 348/12, 13, 10, 6, 906 |  |  |
| Applicant<br>(E GUIDE, INC.) INDEX SYSTEMS, INC  |  |  |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.  
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:
  - I ☒ Basis of the report
  - II ☐ Priority
  - III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application

|  |   |
|--|---|
| Date of submission of the demand<br><br>05 JANUARY 2000  | Date of completion of this report<br><br>15 SEPTEMBER 2000      |
| Name and mailing address of the IPEA/US<br>Commissioner of Patents and Trademarks<br>Box PCT<br>Washington, D.C. 20231 | Authorized officer<br><br>ANDREW FAILE <i>James R. Matthews</i> |
| Facsimile No. (703) 305-3230   | Telephone No. (703) 305-4380                                    |

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/13065

**I. Basis of the report**1. With regard to the **elements** of the international application:\*

- ☒ the international application as originally filed
- ☒ the description:  
pages 1-17 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages 18 , as originally filed  
pages NONE , as amended (together with any statement) under Article 19  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages 1-17 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the sequence listing part of the description:  
pages NONE , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/~~fig~~ NONE

5. ☒ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/13065

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. statement**

|                               |                    |     |
|-------------------------------|--------------------|-----|
| Novelty (N)                   | Claims <u>1-3</u>  | YES |
|                               | Claims <u>NONE</u> | NO  |
| Inventive Step (IS)           | Claims <u>1-3</u>  | YES |
|                               | Claims <u>NONE</u> | NO  |
| Industrial Applicability (IA) | Claims <u>1-3</u>  | YES |
|                               | Claims <u>NONE</u> | NO  |

**2. citations and explanations (Rule 70.7)**

Claims 1- 3 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a method for displaying television program information comprising the steps of storing, selecting, retrieving, and displaying as claimed.

----- NEW CITATIONS -----  
NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/13065

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**I. BASIS OF REPORT:**

5. (Some) amendments are considered to go beyond the disclosure as filed:

NONE

## PATENT COOPERATION TREATY

RECEIVED

AUG 27 1999

LTR

From the INTERNATIONAL SEARCHING AUTHORITY

Christie, Parker &amp; Hale, LLP

PCT

To: LEROY T. RAHN  
CHRISTIE, PARKER & HALE, LLP  
POST OFFICE BOX 7068  
PASADENA, CA 91109-7068

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

CASE # **34758PCT** ACTION **2**REMINDER DATE DATE **11/20/99**DEADLINE **11/20/99**Date of Mailing **20 AUG 1999**  
(day/month/year)

|  |  |
|--|--|
| Applicant's or agent's file reference<br><b>34758PCT/LTR</b> | FOR FURTHER ACTION See paragraphs 1 and 4 below                      |
| International application No.<br><b>PCT/US99/13065</b>       | International filing date<br>(day/month/year)<br><b>09 JUNE 1999</b> |
| Applicant<br><b>E GUIDE, INC.</b>                            |  |

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.  
☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau.

If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 bis 1 and 90 bis 3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

|   |   |
|---|---|
| Name and mailing address of the ISA/US<br>Commissioner of Patents and Trademarks<br>Box PCT<br>Washington, D.C. 20231 | Authorized officer<br>Vivek Srivastava <i>James R. Matthews</i> |
| Facsimile No. (703) 305-3230  | Telephone No. (703) 305-4038                                    |



## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

|   |  |   |
|---|--|---|
| Applicant's or agent's file reference<br>34758PCT/LTR | FOR FURTHER ACTION   | see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. |
| International application No.<br>PCT/US99/13065       | International filing date (day/month/year)<br>09 JUNE 1999 | (Earliest) Priority Date (day/month/year)<br>09 JUNE 1998   |
| Applicant<br>E GUIDE, INC.                            |  |   |

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I).
2. ☐ Unity of invention is lacking (See Box II).
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
  - ☐ filed with the international application.
  - ☐ furnished by the applicant separately from the international application,
    - ☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
  - ☐ transcribed by this Authority.
4. With regard to the title, ☒ the text is approved as submitted by the applicant.  
☐ the text has been established by this Authority to read as follows:
5. With regard to the abstract,
  - ☐ the text is approved as submitted by the applicant.
  - ☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is:  
Figure No. 1
  - ☒ as suggested by the applicant.
  - ☐ because the applicant failed to suggest a figure.
  - ☐ because this figure better characterizes the invention.☐ None of the figures.

## Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

## NEW ABSTRACT

A database consisting of inventive data structures comprising a static area (300) and dynamic area (301) is used to facilitate the creation of electronic program guides when used with a television program schedule system. The database is periodically updated with television program schedule information and is interrogated by a schedule system in order to create program guides.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99/13065

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : HO4N 7/10, 7/14,  
US CL : 345/327; 348/12, 13, 10, 6, 906  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 345/327; 348/12, 13, 10, 6, 906

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS TV, guide, schedule, times, channels, interactive

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| X         | US 5,589,892 A (KNEE et al) 31 December 1996, fig. 6, fig. 8, fig. 10, fig. 18, fig. 19, fig. 23, col. 2 line 50 - col. 6 line 59 | 1-3                   |
| A         | US 5,557,338 A (MAZE et al) 17 September 1996   | 1-3                   |
| A         | US 5,600,378 A (WASILEWSKI) 04 February 1997  | 1-3                   |
| A         | US 5,596,373 A (WHITE et al) 21 January 1997  | 1-3                   |



Further documents are listed in the continuation of Box C.



See patent family annex.

|   |  |
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| * Special categories of cited documents   | *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |
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